IQL® Helios Area-/Streetlight

User Manual

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1. Safety

In order to use the product safely and optimise the life of the product, the following instructions must be observed.

- Only qualified personnel may install the product.
- Work in accordance with locally applicable safety standards and regulations.
- Ensure there is a reliable connection to the earthing system.
- Do not clean the light fitting with a high pressure steam or water jet, to avoid damage not covered by warranty.

2. Warranty

2.1 General

The guarantee on the IQL® Helios fittings is only applicable when the light fitting is used within the operational limits.

Operational limits are:

- The minimum and maximum ambient temperature for the IQL® Helios fittings are -20°C to +40°C.
- The light fitting must be installed by a qualified person and in compliance with the installation instructions.
- Damage caused by incorrect installation, accidents or external influences such as lighting strike and harmonic distortion not in accordance with EN 50055 are not covered by the guarantee.

The lighting level of the light fitting depends on the temperature and is therefore not covered by the guarantee.

If an IQL® Helios fitting fails within the warranty period, IMT B.V. will supply a new fitting with a comparable specification free of charge. Before the guarantee can be confirmed, a defective light fitting must be sent to IMT B.V. at the user's expense for inspection. After this inspection the user will be informed of the result(s). See invoice for individual guarantee agreements.

2.2 Life span

Switching the light fitting with a semiconductor photoelectric cell or a semiconductor relay has no known effect on the life span of the light fitting.
It is expected that more than 70% of the original illumination power will be retained after 80,000 operating hours.

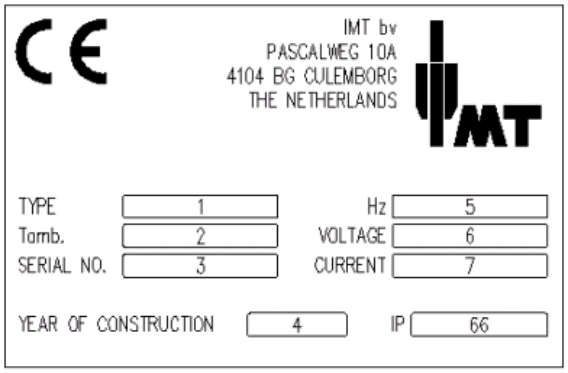
3. Type plate

3.1 Standard model

The standard model light fitting has a type plate attached:

TYPE PLATE

This contains the following information:



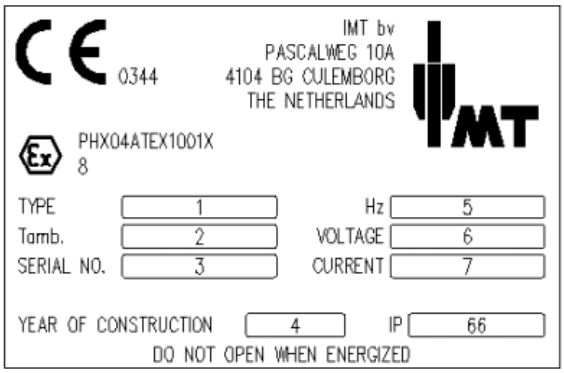
1. Type : Low temperature range IQL55-LT IQL85-LT
   : Normal temperature range IQL55 IQL85
2. Ambient temp. : Low temperature range -40°C up to 40°C
   : Normal temperature range -20°C up to 40°C
3. Serial number
4. Year of Manufacture
5. Frequency : AC 50/60
   : DC none
6. Voltage : 200-277Vac/dc or 100-120Vac/dc
7. Current :

	100-120 Vac/dc	**200-277 Vac/dc**
: 55W	460mA	260mA
: 85W	730mA	400mA
: 165W	1420mA	740mA

3.2 Explosion proof model

The explosion proof model light fitting has a type plate attached:

TYPE PLATE



This contains the following information:

1.	Type	: Low temperature range	IQL55-LT	IQL85-LT
		: Normal temperature range	IQL55	IQL85
2.	Ambient temp.	: Low temperature range	-40°C up to 40°C	
		: Normal temperature range	-20°C up to 40°C	
3.	Serial number			
4.	Year of Manufacture			
5.	Frequency	: AC 50/60		
		: DC none		
6.	Voltage	: 200-277Vac/dc or 100-120Vac/dc		

7.	Current	:	**100-120 Vac/dc**	**200-277 Vac/dc**
		: 55W	460mA	260mA
		: 85W	730mA	400mA
		:165W	1420mA	740mA

8.	Marking	: IQL 55 and IQL 85	: Ex II 3 GD EEx nA II T4 T135°C IP66
		IQL165W	: Ex II 3 GD EEx nA II T3 T160°C IP66

4. Product Description

All IQL® Helios light fittings have been designed for use in demanding conditions.
The characteristics of the IQL® Helios fittings are:

- Maximum of 10 year guarantee on correct operation[1]
- 100,000 hours maintenance-free operation expected[2]
- sealed for life
- vibration proof
- based on the principle of induction
- explosion-safe model ATEX category 3 suitable for use in Zone 2 & 22

[1] For the Helios IQL®165 a different maximum guarantee period of 6 years applies. See invoice for individual guarantee agreements.
[2] For the 165W version 60.000 hrs maintenance-free operation expected

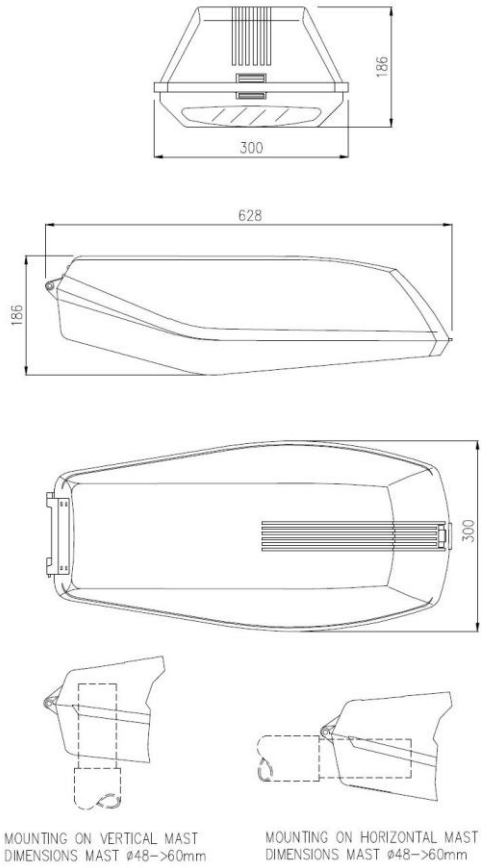
5. Specifications

5.1 General

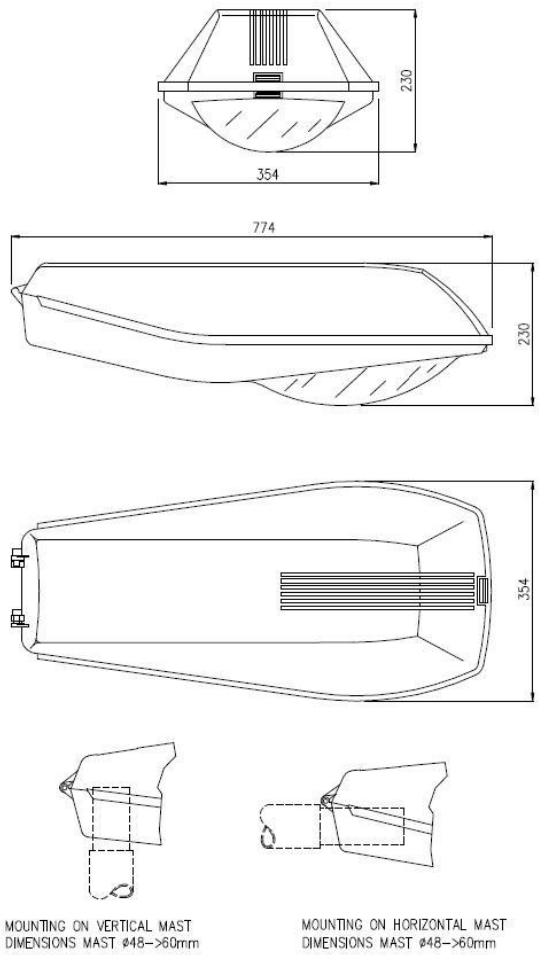
Housing	: Copper free aluminium
Lens	: Toughened glass
Colour recognition	: Ra>80
Ingress protection	: IP66
Burning position	: Universal
(Re)ignition	: Instant
Power factor	: >0,92
Connection IP66	: Standard-3 pole Terminal Block
Connection EX Zone2	: Standard-12m flying lead Type RMcL H07RN-F 3x2.5mm²

Options:
The following options are available for the IQL® Helios light fittings:
Lamp Colour : Warm White (colour 827), Cool White (colour 840), Clear Sky
Wattage : 55 watt, 85 watt and 165 watt

5.2 Dimensions



IQL® Helios Area-/Streetlight 55/85W



IQL® Helios Area-/Streetlight 165W

6. Installation

6.1 Preparation

1. Check that the light fitting will be installed in an environment that matches the ambient temperatures, gas group and temperature class (for Zone 2 and 22). This data is shown on the light fitting type plate.

WARNING
The installation of the light fitting in an environment that does not match the specified conditions can result in a dangerous situation.

WARNING
The installation of the light fitting in an environment that does not match the specified ambient temperatures can have a strong negative effect on the life span of the light fitting.

2. Choose the correct type of protection for the light fitting. The protection device needs to be a fuse or a circuit breaker of at least 4 kA with a C characteristic.
3. Determine the number of light fittings that can be installed in each group. Consult the following table for this.

Installation protection	55 W		85 W		165 W
	100-120 VAC/DC	200-277 VAC/DC	100-120 VAC/DC	200-277 VAC/DC	200-277 VAC/DC
B Type, 10 A	15	20	15	20	10
C type, 10 A	15	20	15	20	10
B Type, 16 A	22	30	22	30	16
C type, 16 A	26	35	26	35	16

	55 W		85 W		165 W
	100-120 VAC/DC	200-277 VAC/DC	100-120 VAC/DC	200-277 VAC/DC	200-277 VAC/DC
Inrush currents	16	12	16	12	24
Peak duration	170 µs	170 µs	170 µs	170 µs	140 µs

When using 30 mA earth leakage switches, provision must be made for a maximum of 30 light fittings on one switch.

6.2 Assembly

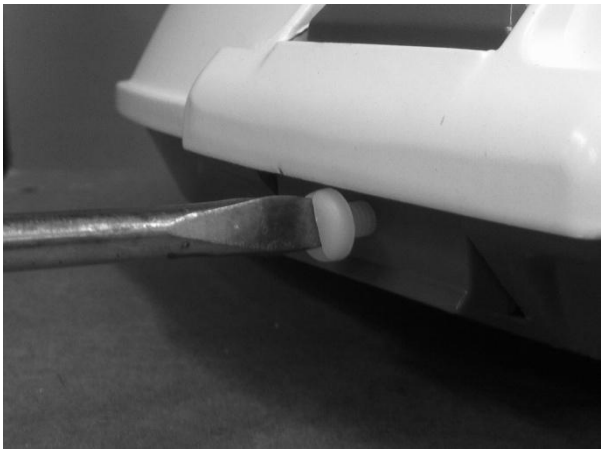
Make sure there is a reliable connection to the earthing system.

WARNING
The installation of the light fitting in an environment that does not match the specified conditions can result in a dangerous situation.

WARNING
The installation of the light fitting in an environment that does not match the specified ambient temperatures can have a strong negative effect on the life span of the light fitting.

WARNING
For Zone 2 and Zone 22 installation: the installation must be carried out in accordance with (NEN-EN) IEC 60079-14.

1. Take the light fitting out of the packaging.
2. Inspect the light fitting for mechanical damage.
3. Unscrew the metal screw to open the light fitting.

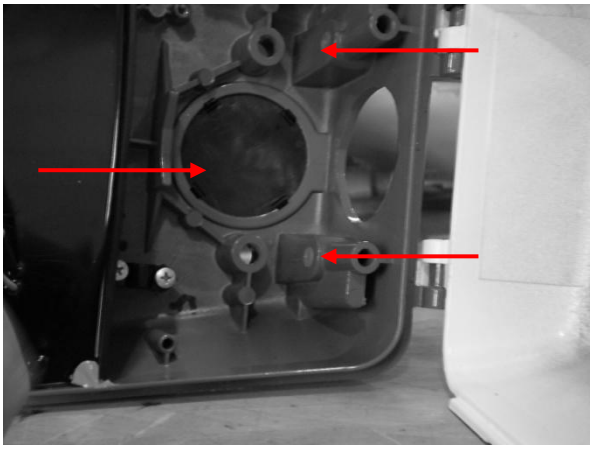


4. Check if the bag that comes with the product contains the following fixing materials:
   2 plastic covers
   2 long M8 socket-head bolts.
   2 short M8 bolts (self drilling)
   1 mast clamp.
   1 strap clamp

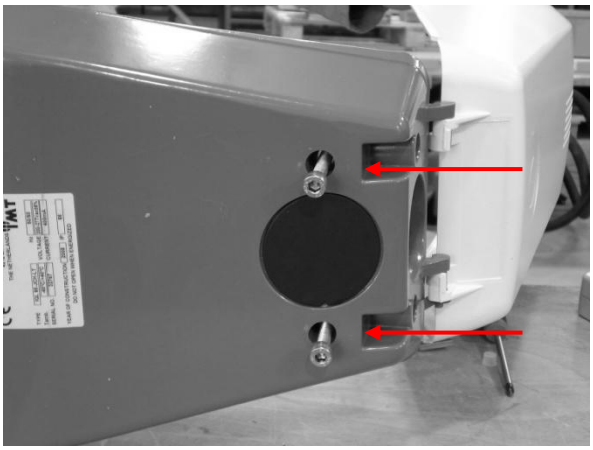
5. Remove the plastic caps from the inserts.

For Horizontal Mounting (for vertical mounting see 13 onwards)

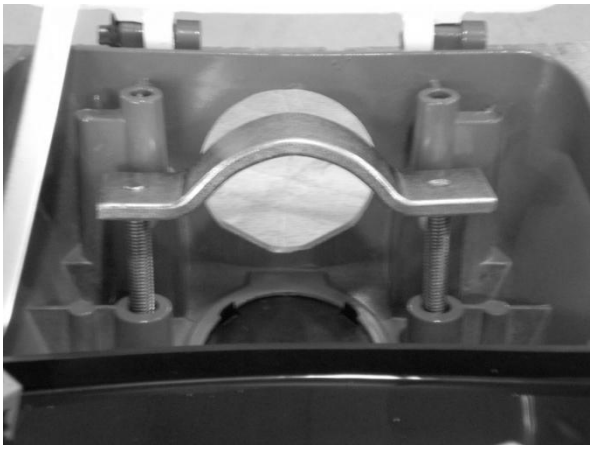
6. Place the corresponding plastic cover over the mounting hole that will not be used.



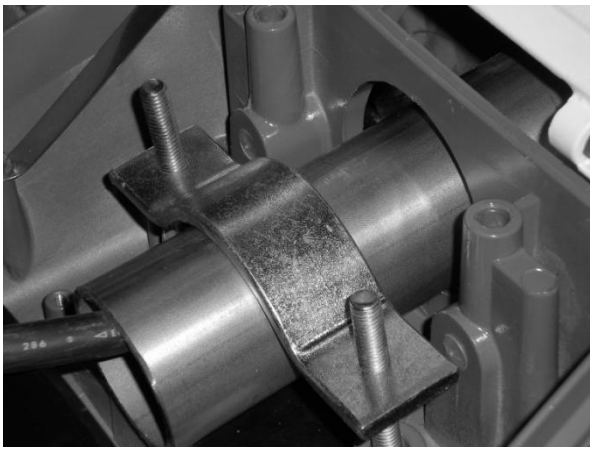
7. Slide the long M8 socket-head bolts from underneath into the light fitting.



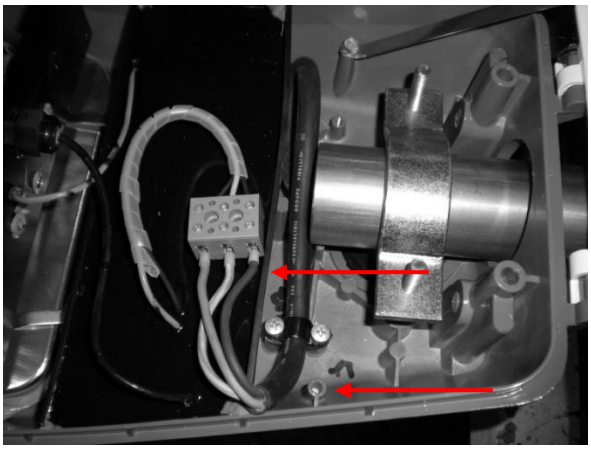
8. Fasten the mast clamp by turning the socket-head bolts a few times into the clamp.



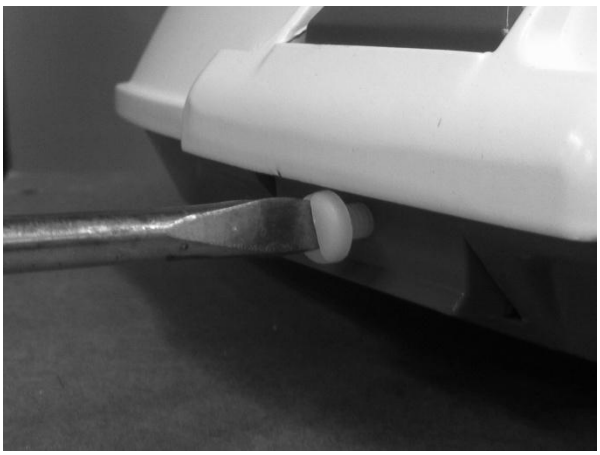
9. Place the light fitting on the mast and tighten the socket-head bolts until the light fitting is completely fastened to the mast.



10. Connect the incoming cable to the connecting block.

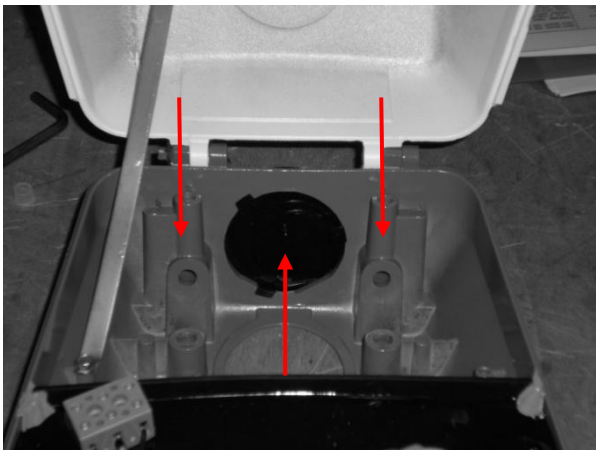


11. Fasten the incoming cable by clamping it tight under the strain relief.
12. Close the light fitting. Fasten the metal screw securely to lock the light fitting.

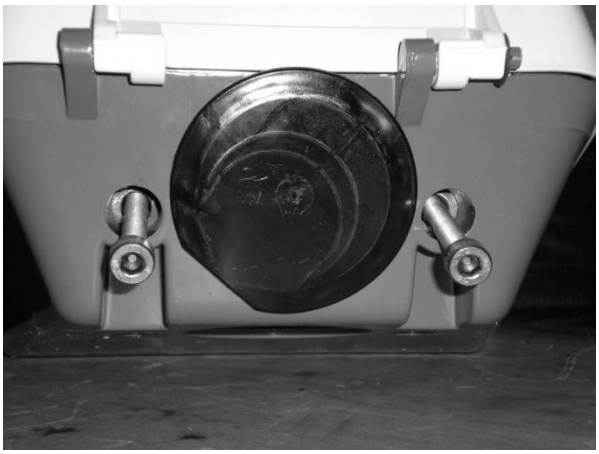


For Vertical Mounting

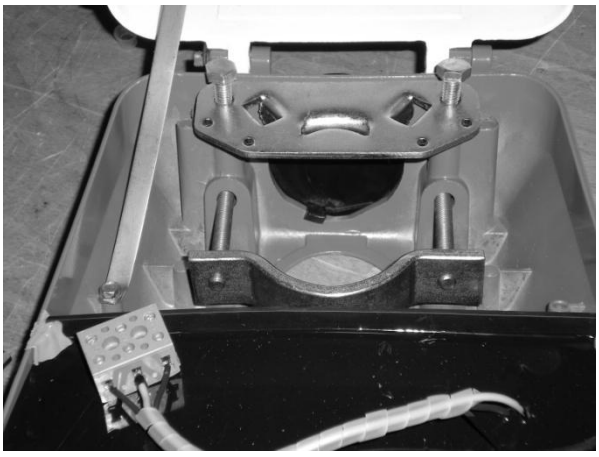
13. Place the corresponding plastic cover over the mounting hole that will not be used.



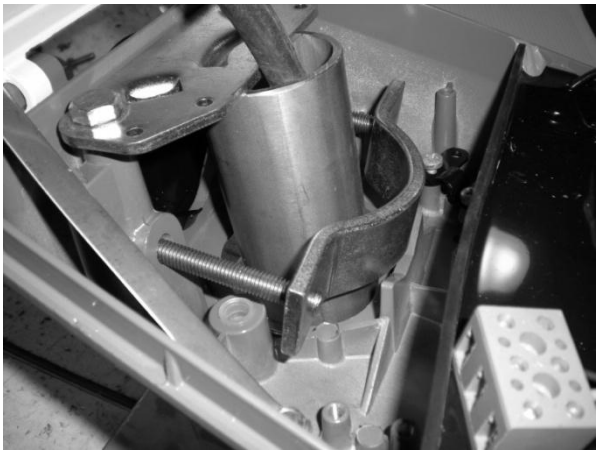
14. Slide the long M8 socket-head bolts from underneath into the light fitting.



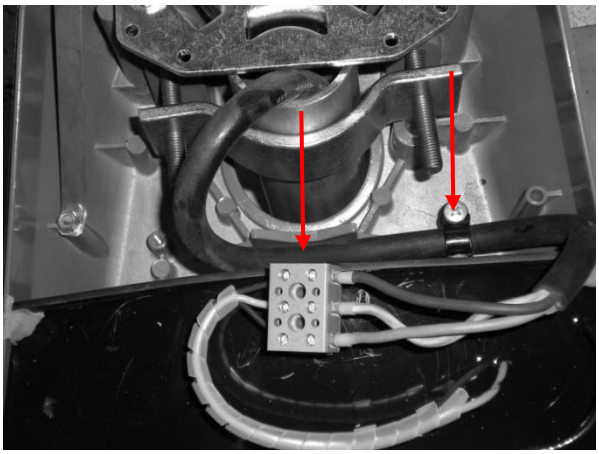
15. Fasten the mast clamp by turning the socket-head bolts a few times into the clamp.



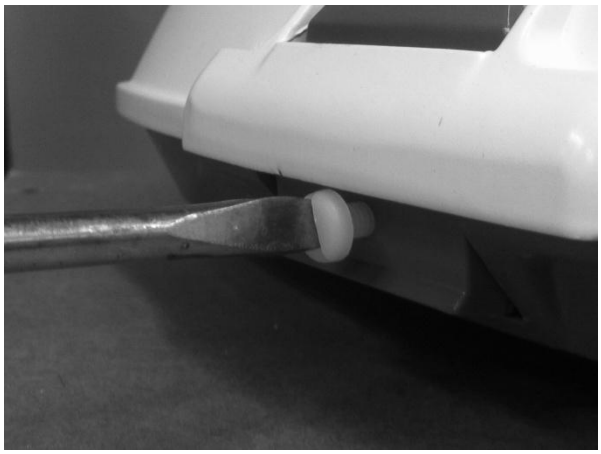
16. Place the light fitting on the mast and tighten the socket-head bolts until the light fitting is completely fastened to the mast.



17. Connect the incoming cable to the connecting block.
18. Fasten the incoming cable by clamping it tight under the strain relief.



19. Close the light fitting. Fasten the metal screw securely to lock the light fitting.



6.3 Connections

In the light fitting there is a standard connecting block, suitable for a single phase supply.

The following connection can be made:
L-N : Connection for the power supply.

In case of a flying lead instead of a standard connecting block, the neutral (code N - blue), the phase (code L – brown) and earth (code PE, yellow-green) need to be connected.

7. Use

7.1 Commissioning

The light fitting can be switched on immediately after installation.

7.2 Insulation test

Installations in which IQL light fittings are installed can be checked with an insulation test. For this test, apply a maximum of 500 Vdc between earth and a phase **or** neutral connection.

WARNING
Never apply more than 500 Vdc between a phase and a neutral connection.

During production, all light fittings have been subjected to a dielectric test (2100 Vdc for 60 seconds). In addition, the light fittings have also been subjected to an endurance test.

8. Maintenance

The light fitting's critical components (the light compartment consisting of the reflector with glass and the sealed off electronics compartment) are 'sealed for life' and cannot be opened. Consequently maintenance as laid down in the IEC 60079-17 standard is not applicable; a visual inspection for correct operation will suffice.

WARNING
Opening the light compartment or electronics compartment voids the guarantee.

9. Recycling

For recycling the light fitting, agreements have been made with local bodies within the context of the WEEE directive.
Contact your local partner (see the chapter 'Contact details'). The local partner will be responsible for further processing.

10. Contact details

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Pascalweg 10a, 4104 BG Culemborg
P.O. Box 88, 4100 AB Culemborg
THE NETHERLANDS
Phone : +31 (0)88 – 12 69 100
Fax : +31 (0)88 – 12 69 101
E-mail : sales@imt.eu

For an up-to-date overview of all national and international contacts, visit our website: www.imt.eu.

11. EC Declaration of Conformity

The undersigned, representing the company

IMT B.V.
Pascalweg 10a
4104 BG Culemborg
The Netherlands
Phone :+31 (0) 88 - 12 69 100

hereby declares that the product: **IQL® Helios** marked with Ex II 3 GD EEx nA II T4 T135°C IP66 or Ex II 3 GD EEx nA II T3 T160°C IP66 complies with the terms of the EC directive(s) including all applicable supplements.

94/9/EC	Equipment and protective systems intended for use in potentially explosive atmospheres
2004/108/EC	Electromagnetic Compatibility

and that all of the following standards and/or technically related specifications are met.

Standard	**Issue**	**Title**
EN 50021	1999	Electrical apparatus for potentially explosive atmospheres. Type of protection "n".
EN 50281-1-1	1998	Electrical apparatus for use in the presence of combustible dust part 1-1: Electrical apparatus protected by enclosures – construction and testing.
EN 61547	2001	Equipment for general lighting purposes. EMC immunity requirements
EN 61000-3-2	2006	Limits for harmonic current emissions (equipment input current up to and including 16A per phase),

EC type certificate number PHX04ATEX1001X issued by

ph Xconsultancy
8 Ellingham Leas
Maidstone, Kent
UK

Culemborg, 1-04-2011
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R.L.L.M.G. Mignot, Managing director

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